

STATUS OF STATISTICS

An analysis, as of the 10th of this month, of the current pricing and inventory status trends in the TVRO industry. Users of this data are warned that CJR 'samples' key OEMs and distributors on the 10th of each month to determine trends and averages. Dealers will find this data useful in planning their own purchasing schedules for the coming 30 day period.

CURRENT PRICING/LNAs

For 100 degree LNAs, 50 dB gain, CWO terms, 3 lot purchase.

- 1) Lowest price reported: **\$275**
- 2) Highest price recorded: **\$320**
- 3) Average price recorded: **\$295**

CURRENT SHIPMENT/LNAs

- 1) Greatest decline reported: **-30%**
- 2) Greatest increase reported: **+10%**
- 3) Average 30 day change: **-5%**

CURRENT PRICING/ANTENNAS

- 1) Percentage reporting price declines **10%**
- 2) Percentage reporting price advances **0%**
- 3) Average 30 day change: **-05%**

CURRENT SHIPMENTS/ANTENNAS

- 1) Greatest decline reported: **-15%**
- 2) Greatest advance reported: **+10%**
- 3) Average 30 day change: **-05%**

CURRENT PRICING/RECEIVERS

- 1) Percentage reporting price declines: **5%**
- 2) Percentage reporting price advances: **5%**
- 3) Average 30 day change: **0%**

CURRENT SHIPMENTS/RECEIVERS

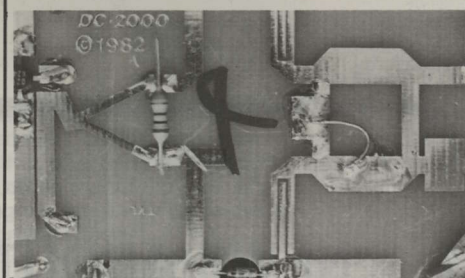
- 1) Greatest decline reported: **-15%**
- 2) Greatest advance reported: **+05%**
- 3) Average 30 day change: **-10%**

EARLY WARNING (Next 30 days)

- 1) Equipment shortages predicted: **None**
- 2) Equipment surplus predicted: **Antennas**
- 3) Biggest downward price move: **Receivers**
- 4) Biggest upward price move: **None**

In surveying individual OEMs and distributors for the 'raw data' that goes into the above monthly summary, CJR pledges complete anonymity to its 'sources'. Dealers are asked NOT to contact CJR for information on 'lowest pricing' or 'greatest declines' referenced here; our pledge to sources is unbreakable! Many issues of CJR do, however, contain 'insert flier' sheets from OEMs and distributors announcing (as in advertising) current marketing specials.

JANUARY 1984



MID MONTH MEMO

BAD NEWS. Nobody likes to be the bearer of bad news; not even a journalist. There are two pieces of dealer related 'bad news' this January. A critical shortage of key TVRO parts is 'bad news'; so, too, is the mess the industry finds itself in vis-a-vis trade shows. Yes, the STTI/SPACE 'deal,' struck in Orlando in November, has fallen apart. We look at both this month.

GALAXY ONE testing, now underway by many of the major services on F3R and W5, is not without problems. For example, **TR13 on G1 is dead;** a (very) pre-mature failure of an output amplifier stage. **Another** transponder is 'acting up' and may be abandoned. And, one of the dual-redundant **receivers** that brings the uplink signal(s) into the bird from the earth below **has failed.** In spite of this 'bad news,' the rush to G1, perhaps the abandoning of W5 for CATV feeds totally by this time next year, rushes on.

SFPC 'bad news' is another topic inside this month. Many dealers are creating their own problems with the SFPC funding program; we see why, here.

Cooper
James
Report

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NEWS ABOUT PRODUCTS AND SERVICES

TEST EQUIPMENT

MICRO Scientific Labs, Inc. (P.O. Box 995, Smyrna, Georgia 30081; 404/435-8630) announces the immediate availability of their new **DR 601 TVRO Test Set**. The unit is housed in a Mil Spec all aluminum case that weighs 27 pounds, has a built-in 5 inch (B and W) monitor, 3" signal level meter, battery or AC powered. It allows the dealer to test LNAs, (most) LNC systems, install, test and align antenna systems, make signal to noise level measurement comparisons, and do a full TVRO installation at the dish. Dealer net is \$1095.

NEWTON ELECTRONICS, INC. (2218 Middlefield Way, Mountain View, Ca. 94043; 415/967-1473) has increased the price on their **GBS 2000** 'satellite simulator' test instrument. The unit provides a signal source for aligning TVRO systems and components, a standard source for comparing TVRO hardware and a signal source for testing TVRO systems. The GBS 2000 system has been widely accepted by



SKYTRONICS meter assists you in antenna installation.

TVRO manufacturers and repair depots for alignment and service work. The price increase, to \$2995, is up from the former \$2695.

SKYTRONICS (6750 SW 111th Avenue, Beaverton, Or. 97005; 503/641-6155) has released a new 'low priced' antenna tuning device called the **Skytrometer**. The unit connects to an LNA or LNC package and allows the installer to verify the presence of satellite signals, measure 'relative' gain from an antenna, and check polarity orientation and cable continuity. A one-year warranty is included. Price to dealers is \$69.95 (less battery).

RECEIVERS

DEXCEL (note new address: 2580 Junction Av., San Jose, Ca. 95134; 408/943-9055) is now shipping a pair of new TVRO receiver systems. The **DXP 1200 Stereo Satellite System** features built-in Polarotor 1 control, discrete and matrix stereo reception, either broad or narrow audio bandwidth, digital readout and an FCC type accepted modulator. The **DXP 1300** includes all of the 1200 features plus infrared remote control with eight functions, 35 watts of built-in stereo amplifier, and push button channel selection. Dexcel products are sold through authorized regional distributors, and include 125 feet of preassembled cables and an LNC.



DEXCEL/Gould DXP 1300 top of the line receiver with remote control, LNC.

ICM VIDEO (Division of International Crystal Manufacturing Co., 10 North Lee, Oklahoma City, Ok. 73126; 405/232-5808) has announced a new commercial grade TVRO receiver for hotel/motel, apartment SMATV systems, broadcast television use and cable TV system use, and, 'high-end' home TVRO system use. The model **SR4600P** is a dual conversion receiver with a temperature stabilized downconverter which can be mounted at the dish or inside of the demodulator. The receiver has 'extended threshold,' a drift-free quadrature detector for video, back porch video clamping, AFC and AGC, tunable audio, wired remote control and is 19 inch rack mounting. The price is \$995 list.

ELECTRONIC RAINBOW, INC. (6254 La Pas Trail, Indianapolis, In. 46268; 317/291-7262) has created a unique answer to dealer service problems, with their model **ERI-7000** TVRO receiver. The receiver is a single conversion, two-piece unit with external down-converter, tunable audio (5.5 to 9.0 MHz), a signal level meter, polarity switch control and sub-carrier output. The price is between \$495 (one unit) and \$255 (100 units). The unique service approach is a set of stand-by service board modules offered by the firm; individual power

NEWS/continues page 14

NOTICE TO READERS

CJR is published mid-month, each month, by **CJR Limited**, for the dealers and distributors in the home TVRO industry, worldwide. CJR is provided free of charge to dealer members of SPACE (Society of Private And Commercial Earth stations) at no expense to SPACE by CJR Limited in recognition that a strong dealer portion of our industry is important to the continued growth of home TVRO systems. **Non-members of SPACE may subscribe to CJR** or \$35 per year (US, Canada, Mexico; \$45 US funds elsewhere), Air Mail delivery, by writing to **CJR at P.O. Box 100858, Ft. Lauderdale, Fl. 33310** or using your Visa/Master Charge card and calling CJR's **Carol Graba** between 9AM and 4PM (eastern) Monday through Friday; 305-771-0505.

OEMs (Original Equipment Manufacturers) may advertise in **CJR** with full page size advertisements, or supply new product or service 'press releases' to **CJR** for inclusion on this page. For full information contact CJR's Carol Graba at 305-771-0505. CJR is the mid-month companion to **Coop's Satellite Digest** (CSD), the home TVRO industry's dealer 'bible' since 1979.

PSST! WANNA' BUY A TRUCK LOAD OF MICROWAVE TRANSISTORS?

END OF The Boom?

As the TVRO industry enters what will probably be the most controversial year in our brief four or five year 'history,' there are problems looming on the horizon which no trade association, no reasonable amount of dollars, and apparently no 'negotiating' will resolve. That problem? **A parts crunch.**

The very earliest home style receivers, designed by **H. Taylor Howard, H. Paul Shuch** and **Robert Coleman**, relied extensively on parts created for the commercial microwave market. Two individual parts in most receivers (the VTO and the high frequency mixer devices) alone cost more in raw parts value than all of the other parts combined. Those \$100 plus parts were an early 'target' for receiver designers who felt that if the big buck pricing on these two parts could be reduced, or eliminated, there would be real progress towards true low-cost receivers.

Sat-Tec's **John Ramsey** did it first, creating a double conversion receiver which eliminated both of the expensive parts. Ramsey did this by building his own **VTOs** and **double balanced mixers**, in his own shop. Others shortly followed although even today there are still many receiver manufacturers buying the 'commercial grade' VTO and mixer devices. Fortunately, the price for both has dropped dramatically in the interim and while Ramsey still maintains it remains cost effective to build your own VTOs and DBM devices, others are not so sure the labor-intensive circuits required to replace the off-the-shelf modules is worth the trouble.

Eliminating the absolute need for expensive commercial grade parts was a step in the right direction, but even when you do this you **still** must go into the marketplace to obtain the necessary transistors and diodes which one finds **inside of** the VTO/DBM devices. And as we shall see, whether you go into the marketplace to purchase ready-built VTOs and DBMs, **or**, you go into the marketplace to buy microwave transistors and diodes to build your own VTOs and DBMs really makes little difference when the raw microwave transistor and diode parts are in short supply. When there are no more raw parts to be had, everyone suffers.

The TVRO industry is, today, facing the most severe parts shortage in the history of the industry. The problem is compounded by the rapid growth of the industry and the rather huge dealer and distributor network which the OEMs now supply. A bubble in raw parts delivery, causing a shortage in raw parts, now affects thousands of businessmen. We have a bubble today. That bubble is growing, steadily, and the more optimistic OEMs don't look for an improvement in the situation for at least six months. Some, in fact, suggest that because of raw parts shortages the industry's growth in 1984 may be severely held back. And that affects us all.

In surveying the state of the raw parts shortage, **CJR** went to a number of receiver OEMs who are dealing in volume purchase of parts on a daily basis. Here is some of what we found.

Not all receiver OEMs are willing to talk about the parts shortage problem. Some took the narrow and somewhat self serving attitude that if they talked openly about their own parts shortage problems, this would come back to haunt them. One suggested that

they have been able to stay ahead of the parts shortages by constantly re-designing their receivers around parts they **could** obtain. "If I discuss how we do this, what parts we replace the shortage parts with, pretty soon other manufacturers will be following us around re-designing the same way we re-design. That will only make the parts shortage worse."

Re-designing. It was a phrase we heard often in our study. **Jim Halley** of Intersat, one of the top design engineers in the industry, spelled it out for us.

"Being a chief design engineer these days is a joke. You have to spend all of your time, seven days a week in my case, doing two things: staying with a telephone stuck in your ear trying to run down 1,000 of this part or 5,000 of that part, just to keep production going; and, when you learn as we seem to daily, that some promised parts shipment is not coming in when it was promised, sitting down and re-designing that section of the receiver around a part which you can get in a hurry."

Halley's point is well taken. A chief design engineer today is not afforded the luxury of sitting before a work bench filled with exotic test equipment creating the **next generation** of 'super TVRO receiver.' He is totally consumed with keeping the present generation of receivers moving on the production line(s). "Finding parts is a full time job; and it has to be done by someone who understands circuit nuances. An example. I had 2,000 of the new 'Baby-Q' receiver coming off the line. One part was holding us up from being able to test the finished receivers. The supplier of the part was ten days late and then he admitted that the part would not be available for several months. The whole introduction of the new 'Baby-Q' receiver was hung up on that single part! So we had to go back and redesign around a missing part, creating a new circuit with several parts to replace the originally specified part. You lose weeks this way, both in engineering time and shipping time. It is a wonder anyone makes any type of production

SPECIFYING parts for a specific circuit is a very complicated business.

schedule anymore."

The truth is of course that some suppliers are not being hurt. They have good, solid, long established relationships with suppliers and they have bought their parts as much as 15 months ahead. Halley again. "If you are not trying to introduce new receiver designs, if you are happy with a static or hopefully mature design, you are less hurt by the parts shortage. When you are constantly designing new products, or trying to improve the design, that's when you get hurt."

PARTS Black Market

A black market in parts has developed in the past year. Especially hard hit has been the **NE564 Phase Locked Loop**; the 'heart' of many TVRO receiver demodulators. The Phased Locked Loop (PLL) was first discovered by England's **Steve Birkill** in 1978. It made a neat, low-cost, demodulator; the circuit that turns the 70 MHz TVRO IF signal into video and ultimately audio. Birkill's fascination with the loop was that he could narrow the bandwidth of the device to recover 'static video' from frightfully weak Intelsat transponders. Taylor Howard made the first major contribution to the American use of 'the loop' when he tamed it for 'wideband' use for full motion video. John Ramsey took it a step further by creating a 'divide by two' circuit which improved the low signal performance of 'the loop.' **Clyde Washburn** of Earth Terminals took the **concept** of 'the loop' and using a higher quality device in place of the NE series devices created high quality Phase Locked Loop detected video. Just one year ago you could go into the marketplace and purchase NE564 devices in 1,000 and up quantities for around a buck each; on a regular shipping schedule. Today, when and if you can find them, prices in the \$9.00 range per device are not uncommon.

John Ramsey of Sat Tec. "While we have seen TVRO use of the NE564 increase perhaps three to five times during 1983, that is not the cause of the present shortage of this part nor the high prices. Unfortunately for us, there has been only a single supplier of this part (in

quantity) worldwide; **Signetics**. And worse than that, the people who build computers have discovered that the NE564 can be a very useful device for **Floppy Disk Drives**. I don't need to tell you how rapidly the computer field has grown this past year; and **this is the direct cause of the 564 shortage.**"

RAMSEY: "The NE564 part is being used in Floppy Disk Drives; and that is hurting the TVRO industry!"

The black market in parts is worldwide. Buyers such as Sat-Tec shop all over the world for parts on a daily basis. Sat-Tec maintains full time buying agents in places like Tokyo and Hong Kong and they have daily 'shopping lists' they work. "When I tell you that the price for 564's is \$9 each in the states, you can be certain that it is \$9 a part in Hong Kong also. The people who have cornered whatever supply as may be remaining of parts such as the NE564 are keenly aware of who uses this part, and what they are willing to pay. I see these middlemen brokers actually taking bids on hard to find parts, daily, working the marketplace up and up just like the 'grain futures market' in Chicago. When you go looking for hard to find parts, you are actually making offers at some price you hope will attract a seller, months in advance. And you keep your fingers crossed that those who are out there bidding against you will not top your price. It is a very hectic, full-time job!"

One of those we talked with suggested that if somebody had the insight, one year ago, to buy 'NE564 Futures' for delivery today from the original manufacturer, at the \$1 per device rate then in effect, "that person could have retired today at the \$9 per device price. Imagine telling your grandchildren that you made your fortune in NE564 futures!"

"IMAGINE telling your grandchildren you made your fortune on NE564 'futures'!"

While the Phase Locked Loop device heads up the 'hard-to-find,' 'expensive-to-buy' list of difficult parts, it is by no means the only problem today. Any of the high frequency transistors are in short supply. The salvation here, if there is one, is in two areas. Number one, there is less use of any **single** high frequency transistor part since there are a number available. Unlike the NE564, which has no low-priced substitute and but a single (quantity) supplier, there are at least 'options' available in the high frequency transistor area. And number two, there are new suppliers coming on line with substantial production capabilities in at least the middle six months of 1984. Today, however, the black market in high frequency transistors is very real indeed.

High frequency transistors? Where are they used?

The (NEC) NE64525 is used in two areas; the LNA (gain stages) and in the downconverters. **NEC** has a particularly attractive family of microwave (high frequency) transistors they call the '**Micro-X Series**' and TVRO system designers have found this transistor 'family' both cost effective and high in performance. Now they are finding them very difficult, if not impossible, to locate and priced 2 to 3 times what they were six months ago. Several of the design engineers we talked with suggested that while the NE564 PLL chip was the biggest problem 'right now,' they saw the microwave family of transistors being an even larger problem by April or May. We'll investigate why, shortly.

LOSING The Formula

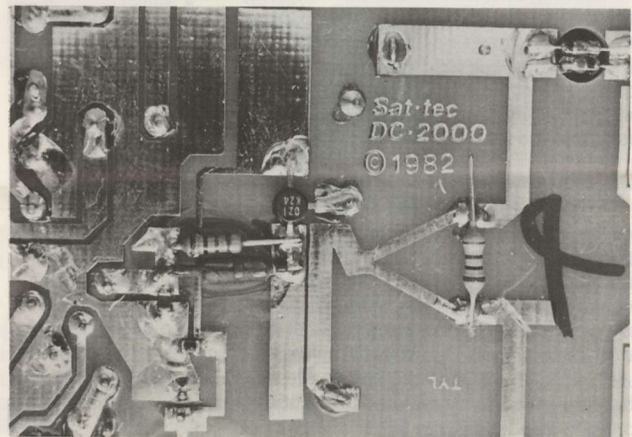
Microwave parts, those special parts that have such refined operating characteristics that they have the unique ability to function in the 4 GHz region, are not standard parts. Until two or three years ago, they cost \$30 up each, even for 'simple' diodes. And while parts manufacturers such as Motorola have been building 'diodes' for several decades, it has only been the past year or two that they have been able to turn out super high quality microwave diodes on a routine basis. The technology that goes into making small parts is awesome; and, expen-

sive.

Motorola had a particularly good microwave diode, the MMBD101. It was ideal for the 'mixer' stage of the down converters. It was fairly priced, delivery was good, and the performance was good. Then Motorola 'lost the formula' for the part. That was the end of the MMBD101.

Lose the formula? How is that possible!

In Motorola's case, it took the combined knowledge and experience of more than 20 years of making diodes to reach the technology level of the MMBD101. Microwave diodes have to be 'very pure' and 'extremely carefully batched.' Diodes and microwave transistors don't just happen. They are made up in a series of processes that begin with the 'mixing' of various chemicals in a tub or tank. Then the chemical mixtures are carefully processed into baking ovens where the chemicals are heated and 'cooked.' The temperature of the 'oven,' the duration of the 'baking' and the mixture that goes into the oven 'raw' must all be **just right**. If anything upsets the formula, the end result is a diode or transistor that has improper operating characteristics; parameters that keep it from functioning as originally intended. All of the parameters, for microwave parts, have to be 'dead on' or the part won't work at microwave frequencies. For the MMBD101, somebody screwed up. Either they 'lost' the formula, or more likely, the formula they thought was right was in fact 'wrong' and when some basic component (such as the raw chemical materials being used) changed on them, they lost the unique abilities the part originally had.



MICROWAVE PARTS/ in this downconverter are in short, if not impossible, supply. And they won't get any better during the first six months of 1984. One OEM suggests taking 'trade-ins' of older receivers "just to salvage the microwave parts"!

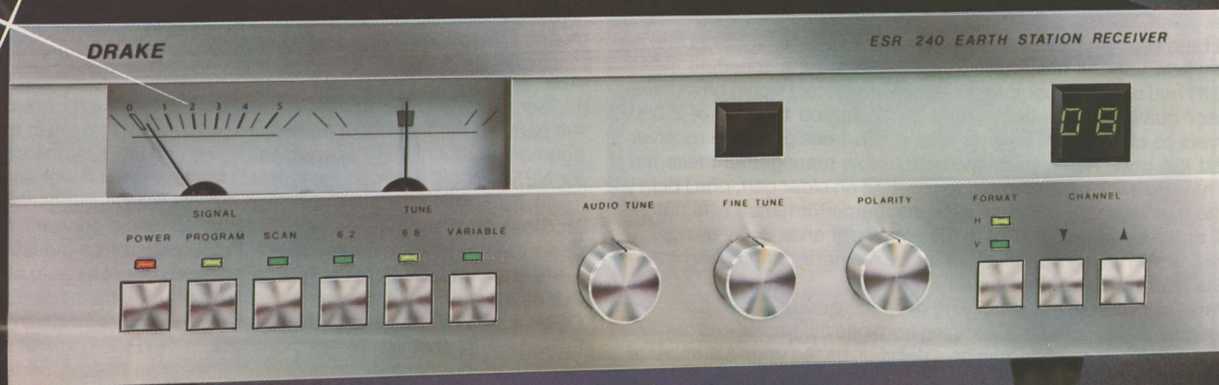
The history of high tech microwave parts is filled with 'lost formula' stories. That is another worry for design engineers. "We are always fearful that when a vendor brings us a brand new part with highly appealing operating characteristics that after we re-design our circuit for that part the vendor may forget how to make the part," remarks one of the engineers **CJR** talked with.

So mixer diodes and other microwave frequency parts, such as the high frequency/microwave transistors, are both in short supply and always in danger of becoming 'endangered species.' The bottom line is that LNAs are susceptible to this shortage, and more particularly, the downconverters are in trouble.

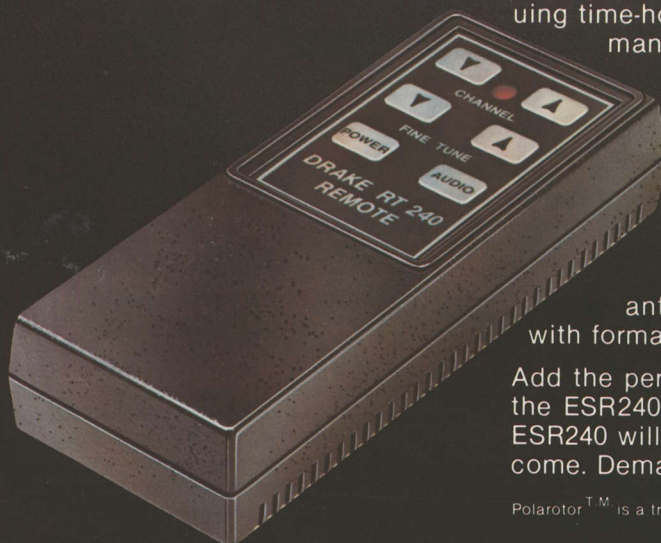
"Let's take the NE64535 as an example," suggests Jim Halley. "Since it is used in **both** downconverters and LNAs, we have two usually separate firms bidding on the part. This part may be three times as expensive today as it was six months ago. The LNA supplier typically has more 'part-dollar' room than does the downconverter supplier. So it would not surprise me to see that particular part end up being used almost exclusively for LNAs since the LNA suppliers can perhaps afford to pay the price increases better than the downconverter/receiver manufacturers. That leaves me trying to figure out what I can use in place of the NE64525 while the LNA design engineer

EARTH STATION RECEIVER

REMOTE CONTROL



ESR240 INFRARED REMOTE CONTROL RECEIVER



In the Drake tradition... The ESR240 infrared remote control earth station receiver incorporates the latest technical innovations and built-in features while continuing time-honored Drake styling and impeccable workmanship. The ESR240's standard features set it apart from all the others:

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- Fixed and variable audio tuning for all subcarriers
- Channel "scan" function
- Crystal-controlled modulator — Channel 3/4
- Full metering
- Automatic TV/Satellite antenna switching
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PIONEER MEMBER OF
ISPACE

gets off the hook for re-design work."

HOW SHORTAGES Affect The Product

The receiver/downconverter/LNA module builders have been feeling the parts crunch for several months. What they are forced to do, to keep the production lines moving, is of interest to you as a TVRO dealer or distributor because ultimately you will be responsible for the performance of the products they deliver to you.

"**There is no question** that under extreme pressures caused by sudden parts shortages, **the quality of the products shipped suffers,**" offers Jim Halley. Picture this; 2,000 receivers on the production line and assembly is 80% completed. A key part is due in the next day. It does not show up. Now the OEM has 2,000 x \$XXX (dollars) sitting on the production floor in unfinished TVRO receiver (etc.) boards. The parts supplier 'promises' he can deliver in four weeks. The OEM is not sure that 'this promise' is any better than the one he originally had. A decision has to be made. Should they let 2,000 x \$XXX sit on the floor for a month, and suffer the consequences with the dealers who are screaming for product, or, should they attempt some 'emergency surgery' and try to re-design around the part to get the receivers out the door in say 2 weeks time?

"**I hate those types of compromises,**" notes Halley. "Yet that is exactly how I spend much of our firm's engineering schedule these days. If I had originally compromised performance, I would have used a lesser quality part to begin with. But I wanted this run of 2,000 receivers to be the BEST we ever built. So I designed the receiver around the best, NEW, parts available. Now management tells me that I have to back-up and re-design around an older part, one I didn't elect to use originally because perhaps the performance was not as good, or it required extra time in the alignment area, or by using this part we were boxing ourselves in for better performance and more options later on down the road."

Parts selection or the specifying of specific parts for a design is a very complicated business. Changing from one mixer diode, for example, to another mixer diode, can be a decision based upon a number of factors.

Cost. Perhaps the new mixer diode costs less. That saves the OEM money and ultimately this will bring down retail pricing on receivers.

Performance. Perhaps the new mixer diode works better, reducing the noise factor of the downconverter and thereby making better pictures with fewer sparklies. That means something to the dealer; he can sell 'better pictures' easier. For more money.

Versatility. Perhaps the new mixer diode can be 'driven' in some intriguing, new circuit that allows the receiver to scan or step tune or lock onto a transponder in a superior way. That means that the receiver designer, by using that particular mixer diode, can offer the dealer a receiver which 'does more,' in the hands of the consumer, than an older style receiver could have done. And ultimately that will sell more receivers for the dealer.

So whether we are talking about mixer diodes or high frequency/microwave transistors or NE564 PLL chips, or whatever, when 'state-of-the-art' part supplies dry up, or the parts become unpredictable in delivery and priced several times their previous 'value,' it all comes home at the dealer end of the line where ultimately the finished product must be displayed and sold to the home customer.

HOW SHORTAGES Affect Product Delivery

This one is obvious. If the OEM is having a difficult time finding parts, his production capacity is up but his actual shipments are 'down.' If R.L. Drake, **for example**, has experienced a 350% increase in product sales during 1983, and it hopes to see that go up by an equal amount in 1984, what do you suppose happens when the parts suppliers tell Drake that 'your allotment of raw parts for 1984 will be 90% of what you got in 1983, for the first six months'? The answer is obvious, for every ten Drake (or whatever brand, **Drake is merely an example here**) receivers you got in 1983, **you will get 9 in 1984;** for as long as the parts shortage continues. And if you are just starting up a TVRO dealership in 1984, and you have dreams of selling 20 receivers per week, what do you suppose your chances are of getting into (for example) the 'Drake Pipeline'? **Not good.** Not unless some-

body who was there in 1983 taking 20 per week suddenly drops out.

The sales manager for a prominent supplier, asking that his firm not be identified, spells it all out.

"**Internally, we are under intense pressure.** Every phone call, it seems, is from some dealer or distributor who is after me for more product. We haven't been 'selling' equipment for several months; we spend all of our time apologizing for slow delivery of product. Or trying to patiently explain to a would-be-new customer why we cannot accept his order. I guess we get up-tight after day in and day out calls like this, and we 'take it out' internally on the engineering guys. **We know** that they are not at fault, **we know** they are doing as well as can be expected, but still we keep 'hoping' that there will be some breakthrough to get us around this logjam. Maybe if they just tried a new engineering direction . . ."

The industry rode the 1983 period boom right to the brink of saturation, and beyond. The marketplace grew so rapidly that most manufacturers, such as Drake and Sat-Tec and Automation Techniques, kept pressing their own internal capacities to produce completed receiver systems. John Ramsey notes, "I pride myself on being on top of the parts situation, worldwide; but I am afraid much of this current situation crept up on me. I was too busy surveying the forest to notice that the trees had disappeared!"

ARE WE Totally To Blame?

Some of the OEM management types are looking for reasons for the parts shortages. Patient engineering types try to explain to management that between Floppy Disk Drives and TVROs, the capacity for NE564 chips is simply exhausted. Management is not so sure.

"**I honestly believe there is a conspiracy,**" suggests **Dave McClaskey** of Intersat. A conspiracy? Who would conspire to shut down the (largely American based) TVRO electronics industry?

"**I know that it is probably a coincidence,** but I have to observe that as we enter 1984, we see the start up of some major Far Eastern OEMs for TVRO hardware. Now let's **suppose** that you were a Far Eastern OEM that wanted to manufacture TVROs. And let's **suppose** that you identified that several key, even critical, parts were being made in the Far East for TVROs and that there were no adequate North American OEMs building these microwave transistors or diodes or what have you. Now let's **suppose** you could pick up the telephone and call one of your 'neighboring' Far Eastern OEMs, **the guy who makes microwave transistors for example,** and somehow 'strike a deal' to shorten up the available supply of microwave transistors going to the US of A. **What do you suppose would happen?"**

If this **assumption** is correct, American manufacturers of TVRO electronics would find themselves without the parts required to continue to turn out TVRO electronics in a quantity sufficient to meet the demands of the marketplace. That would mean that TVRO hardware would suddenly become short in supply in North America.

"OK, so now the Far Eastern supplier starts shipping into North America his very own TVRO electronics, built using the parts which were originally scheduled to go to the North American OEMs of receivers. Now we have Far Eastern receivers on the market, **at whatever price they decide to ask for the receivers,** and, American receivers in short supply. I think that makes a beautiful 'market entry situation' for the big-time Far Eastern OEMs. They don't have to battle for a share of market since they will be one of the few suppliers with the ability to supply all of the receivers the market will take. And the American OEMs?"

They would be hurting.

"Let's face it, there is a 'war' coming; **a war between American OEMs and Far Eastern OEMs.** Now if you were in a position to control raw parts to the American OEMs, and that would help your own entry into 'the war,' **what would you do?** I think it is a damn clever ploy; you win the war by taking away the other side's bullets!"

There is no proof of the McClaskey theory. And in fact most of the other American OEMs CJR surveyed didn't think this was the

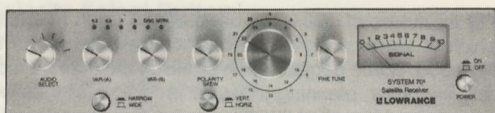
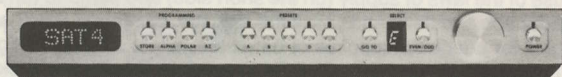
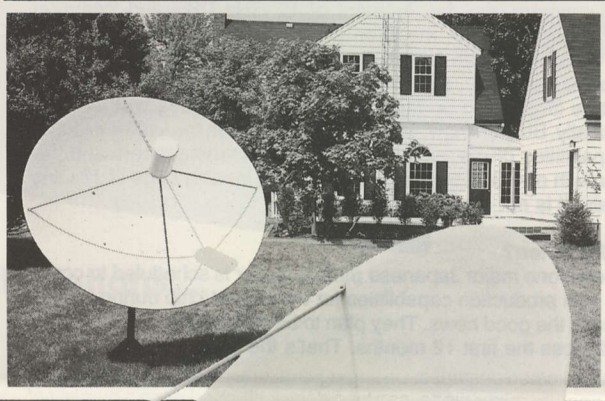
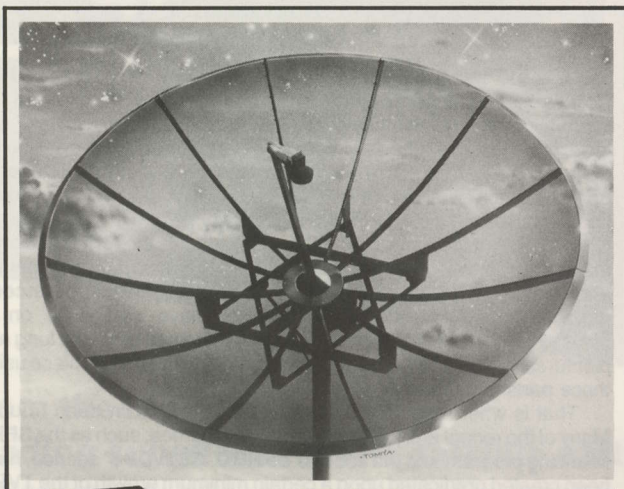
McCLASKEY: "You win the war by taking away the other side's bullets!"



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cause of our present problems. We have already cited the rapid expansion of the Floppy Disk Drive market, worldwide, and the use of 564 chips in that product line. There is another market which might be hurting us, and it unfortunately is 'coming on line' early in 1984.

The first Japanese domestic 12 GHz DBS satellite is scheduled to be launched in February. This 'test' satellite is part of an ambitious program funded by 'Japan, Inc.' to get that nation's electronic producers deeply involved in satellite video systems. At least one formal Japanese agency has issued a combination 'forecast' and 'call-to-arms' which **mandates** that no fewer than 2.5 million 12 GHz DBS terminals be produced in Japan during 1984; for internal consumption. Even a number 1/10th that big (250,000 12 GHz terminals) would have a devastating effect on parts. Why? Because **many** of the very parts **we are talking about**, for American 4 GHz terminals, **will be required for the Japanese 12 GHz terminals.**

"If I had several million, make that \$10,000,000 to invest, I think I would seriously consider putting it into a microwave transistor OEM facility," suggests John Ramsey. "Between the Japanese 12 GHz internal program, the development of 12 GHz DBS and 'common carrier' birds in Europe, the start-up of Comsat and other (such as USCI) 12 GHz in North America . . . with Australia's 12 GHz system just around the corner, and so on . . . the marketplace for microwave transistors is going to be huge. **Ultimately** the prices **will tumble**, dramatically. But right now, we are caught between the limited production capabilities of the 'old guard' transistor manufacturers and the rapid growth of 4 GHz systems plus the very leading edge of 12 GHz terminals. It is not a pleasant place to be."

RELIEF? When?

At least one major Japanese parts supplier is scheduled to come on line with production capabilities for the NE564 chip during February. That's the good news. They plan to be able to turn out 1.4 million or so devices the first 12 months. That's the better news.

RAMSEY: "It is not a pleasant place to be."

Now the bad news. The first 1.4 million have been pre-sold to computer manufacturers. Damn those Floppy Disk Drives!!!

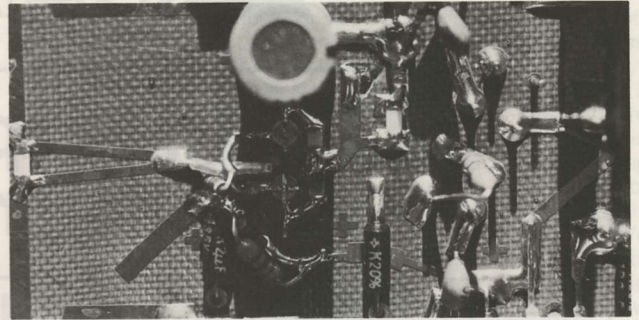
"**Some of us will benefit from this, nonetheless,**" suggests Jim Halley. "Floppy Disk Drive manufacturers are no different than anyone else; they have placed orders for 1984, and beyond, based upon their **anticipated** needs. If they have a slow few months, they will look to dump 564 chips just to clear their raw parts inventory shelves. We may get some relief that way. I spend a few minutes each day analyzing the sale of Floppy Disk Drives and computer systems. As soon as I see sales are down, I know it is time to call up a few friends who are inventory control types at computer OEMs."

In fact, one of the last 5,000 lot groups of 564 chips got into the TVRO marketplace in exactly that way, late in 1983. An enterprising TVRO OEM, who keeps his phone humming ten hours a day 'chasing parts,' located 5,000 of the magic chip in a warehouse in Arizona where a (CATV) manufacturer had over-bought. He was lucky. Both sides were lucky. The CATV manufacturer moved some inventory, at a profit, and the TVRO manufacturer got much needed parts. There are, today, 5,000 TVRO receivers in dealer hands which would not have been there had the CATV manufacturer not 'over bought' more than six months ago.

"I expect the microwave transistor area to be the hardest hit for the next six months," suggests John Ramsey. "Add to that the microwave diodes," urges Intersat's Jim Halley. "The prices we are now paying, two to three times what we paid six to seven months ago, I forecast will jump up to ten times what they were originally by May or June."

Why are American OEMs so dependent upon Far Eastern (primarily Japanese or Japanese owned) semi-conductor facilities?

HALLEY: "I spend a few minutes each day analyzing the sale of Floppy Disk Drives."



"It is the same old story; firms such as Motorola design a new formula for a new part and they produce it for awhile. Then as the volume grows the Japanese figure out how to improve the 'yield' and lower the price. Pretty soon Motorola stops making it and for awhile we are in 'heaven'; more parts, at better pricing, and often with better performance. Then the market doubles or triples or sextuples and we find ourselves out of parts. Or the parts are priced beyond our reach."

It takes a minimum of six months, assuming the firm decision is made to get into a new product area, for a major supplier to 'tool up' and start to deliver high tech microwave parts. **A year is not uncommon.** When a parts shortage as we now have 'creeps up' on an industry, as this one apparently has done, there can be a very long and painful six to twelve month interim during which the marketplace using those parts finds itself in deep trouble.

That is where the TVRO marketplace is today; in deep trouble. Many of the recent entry major marketing schemes, such as the **SFPC** financing program and the soon-to-be **HBO 'CBD/DBS'** service, have been created predicated upon a certain minimum growth of the TVRO home system 'universe' during 1984. When the 'natural growth' of the marketplace is artificially limited by something so mundane as a shortage of microwave transistors, everyone's forecasts and market projections get thrown into a cocked hat.

If the growth is stunted as severely as many now feel it will be, **more than dealer inconvenience will result.** Yes, hardware prices will rise as parts prices rise. Yes, hardware prices will rise again because of the laws of supply (on the short side) and demand (on the high side) ebb and flow. And yes, if the industry 'stunts' too much as it struggles for adequate supplies of hardware, some of the ambitious programs such as the HBO 'CBD/DBS' will possibly be set back in time.

So much of the future of 1984 has been based upon marketing projections which **at worst** suggested a 200% growth factor for the new 12 month period. Some people (such as HBO) have taken those projections very seriously, planning massive programs of their own around those numbers. How all of this sorts out during the coming 11 and one-half months will be critical to the 'state-of-the-industry' as we enter 1985.

For now, as a dealer or distributor, you should be aware that there are serious problems at the OEM level in creating products for you to sell. These problems magnify with the larger receiver suppliers because they are hurt more dramatically when critical parts shipments are delayed or cut back 50%. Is there a new technology on the horizon that can help out? We'll investigate that subject in a future issue of **CJR.**



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DOOMED To Failure?

Newly elected SPACE President for 1984 **Peter Dalton**, also President of pioneering TVRO receiver manufacturer KLM Electronics, Inc. stood on the dias of the Orlando 1983 SPACE banquet. The SPACE 'Orlando Show,' the second for the trade association and the first in 15 months, had all of the earmarks of being a resounding success. The banquet was a sell-out; on the agenda for the evening was **Ted Turner** from WTBS/CNN, and, **Senator Barry Goldwater**. The exhibit hall had been sold out for weeks prior to the gathering, and an overflow crowd was busy inspecting new equipment and entering orders during every available minute of the show. Dalton had an announcement to make.

"I am pleased to announce that the forthcoming March 1984 show, to be held in Las Vegas, will be a joint effort of STTI and SPACE." Thunderous applause followed. Virtually everyone of the 1,000 people at the banquet were affected by the announcement. The industry had been divided on this 'issue' for many months. The date was November 4th.

On December 1st **STTI** (Satellite Television Technology International, Inc.) dispatched a telegram to Dalton. After a preamble, the telegram came to the key point of the message.

"... STTI is hereby terminating negotiations with SPACE on the proposed trade show agreement... STTI is immediately resuming its original plans for seminar/trade shows..."

A brief history is in order. The original trade show for the industry was put together by Bob Cooper; in August of 1979. 500 people paid to attend, there were 8 exhibits. That trade show launched the industry we now know and Cooper followed it with three per year through the Washington, DC show in the spring of 1981. **Rick Schneringer** and some financial partners purchased the Cooper shows plus his manuals publication business in 1981, and Rick and **Gloria Schneringer** have continued the show schedule since that date. During 1983 STTI held three shows; **Las Vegas** in March, **Minneapolis** in June and **Nashville** in September. The Las Vegas show was judged by most in the industry to have been the most successful to date, and the Nashville show drew rave reviews.

SPACE, the trade association, has faced deficit budgets from the day the organization got off the ground at the February 1980 Miami show. That is not an unusual posture for a trade association which depends upon 'membership fees' from its members. What is unusual about SPACE is that the organization operates with only one full time employee, it farms out virtually all of its 'paperwork' to the law firm of Brown and Finn in Washington, DC, and, SPACE has not depended upon a trade show of its own to help it meet its budget requirements.

Critics of SPACE point out that by farming out the paperwork to Brown and Finn, SPACE is paying large monthly amounts to a law firm to answer its mail, process its membership applications, handle telephone calls for assistance from members (and non-members), and to perform a growing mountain of 'desk work' which could be handled more frugally by a small, fulltime staff. SPACE's Board of Directors is elected in several membership categories, once per year. Membership categories include 'consumers,' SMATV/private cable, deal-

ers, manufacturers/OEMs, and recently, distributors. The board meets typically three times per year, concurrent with industry trade shows.

It was at the Las Vegas show last March that the SPACE board met to consider the thrice-annual plight of the budget. A suggestion that SPACE increase its 'annual' trade show from once to twice was offered and adopted. Aware that Las Vegas was a good spot, aware that March was a good time of year to be in Las Vegas, SPACE assigned a 'show committee' the task of securing a Las Vegas hotel for March of 1984. There was, however, a 'conflict' which was evident; STTI was also scheduling a show, in Las Vegas, in March of 1984. And in case it has escaped you, trade shows generally make money for their promoters; whether the promoter is a private operation such as STTI, or a trade association, such as SPACE.

If the 'conflict' between the SPACE decision to hold a trade show in Las Vegas in March of 1984 did not take up much time at the Board meeting in Vegas, it certainly did explode when reports 'hit the street' outside the board meeting room. STTI was incensed to think that the trade association which it belonged to and supported would 'sneak in behind its back' and announce a competitive trade show in the same city, in the same month, one year hence.

The conflict grew through the summer. At the June STTI show in Minneapolis, STTI's Rick Schneringer was invited to attend the SPACE Board meeting to discuss a resolution to the problem. In that meeting Schneringer "agreed to talk about the issue" and further agreed "that as a starting place, a 50-50 division of both the work load and the income between STTI and SPACE for the 1984 Las Vegas show" was **possible**. Some elements within SPACE took Schneringer's 'agreement to talk' as a **commitment to share** the Las Vegas show. A press release was hurriedly prepared and 1,000 copies of the sheet were distributed while the Minneapolis show was still on. Schneringer saw the press release as 'premature' and 'suggesting the issue had been resolved.' He had **not agreed** to such a sharing, he maintained, and had agreed **only** to discuss the possibility. Negotiations promptly broke off and the industry was back with two, competitive, shows in Las Vegas in 1984.

An attempt to start the talks again at the Nashville show in September never got off the ground. Schneringer, in the middle of a highly successful show (many would say **the most successful** to date) was in no mood to be 'giving in' to SPACE. SPACE, facing uncertain results at its own forthcoming Orlando show, was not sure whether it was in a position of weakness or strength. Besides, at the Orlando show SPACE would elect a new set of officers, internally, from the newly elected Board of Directors. The issue skated along on uncertain ice until Orlando.

SPACE saw the Orlando show as highly successful. A sizeable chunk of change would be in the SPACE bank account following the show; show profit. Everything was sold out, and the attitude of the exhibitors and attendees was positive.

Schneringer, apparently, saw it differently. Attending, he would file away his own professional assessment of what he saw and he would later write to KLM's Dalton his impressions. These observations would include **"... we might as well accept the fact that the Orlando Trade Show was an unmitigated mess. Poorly planned and worse in execution. Security was practically nil. The seminars were the worst I have ever seen — never on time with a generally poor selection of speakers... the only event with any sparkle was the Friday night banquet — and exhibitors don't sell much equipment at a banquet."**

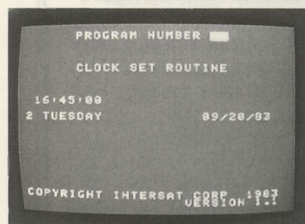
SPACE, represented by newly elected President Peter Dalton and by Board Member **Taylor Howard**, who 'doubles' as an 'MC' at STTI shows, had entered into negotiations with STTI through Rick Schneringer at Orlando. SPACE, according to accounts, had pre-sold 81 booths to its March 84 Las Vegas show. Schneringer said he had pre-sold 320 of its booths. Clearly Schneringer was 'ahead' in booth space sold, and if the letter to Dalton reflects on the true feelings of the man, Schneringer also thought he was in a position of strength with the show itself. The agreement, **tentatively reached** it turns out in Orlando, called for SPACE to receive a 'guaranteed' amount of money from the Las Vegas show. A similar agreement for two 'additional shows' per year was also 'tentatively' reached. STTI was to manage

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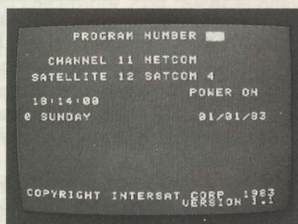
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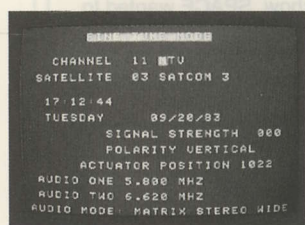
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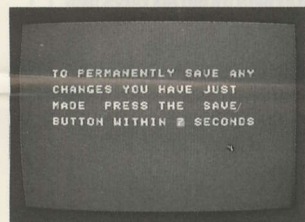
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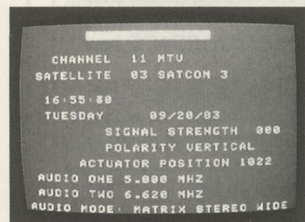
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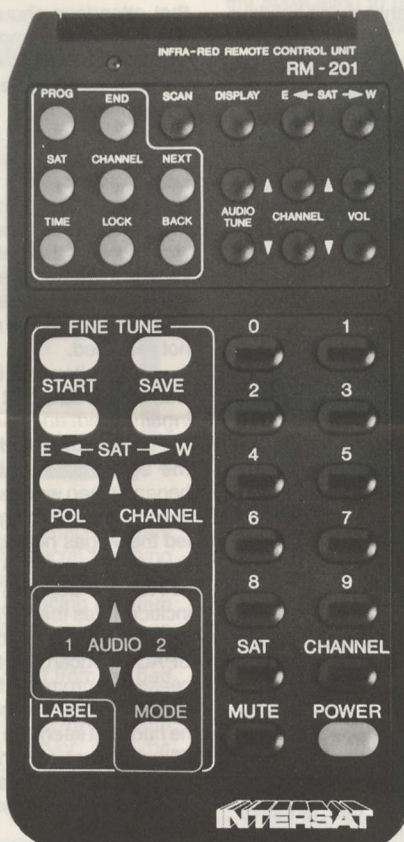
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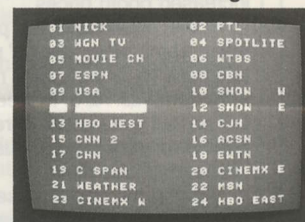
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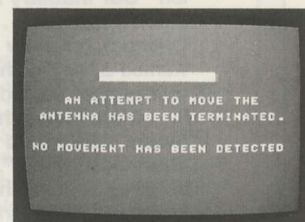
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the show location, the exhibit area and the parking lot. STTI was to promote the show, out of STTI funds. SPACE was to handle the program portion of the show and use its 'best efforts' to get its own membership to attend the show.

Shortly after the Orlando show, the wheels began to turn. SPACE turned its exhibitor (booth) list over to STTI. STTI got on the telephone to its own 320 booth holders to find out whether the exhibitors would be willing to attend a joint/single event show, **but at increased booth pricing** (61.5% increase per booth space). SPACE also notified the Vegas hotel where it was holding 'space' and cancelled the reservations. While all of this was going on, there was a secondary effort between Dalton and Schneringer to reduce the tentative agreement to writing.

In defense of Dalton, he had been President of SPACE for only a matter of days. He had not previously served on the Board of Directors and while he had attended a few of the Board meetings at the invitation of the Board, he was 'new' to the job. He also had a rapidly expanding business of his own to run, and, there were the Thanksgiving holidays ahead.

In defense of Schneringer, he had returned to Oklahoma from Orlando and immediately set out to do everything which had to be done to get the change over in place. Preparing for a major show such as Vegas requires six to nine months of lead time; there is a myriad of details which those who have not been in 'the show business' can not even imagine. He and his staff contacted every firm holding booth space at his STTI show to gauge whether the booth price increase would 'go down.' Increasing the booth prices was essential; if STTI was going to guarantee SPACE a six figure number for 'joint participation' in the show, that extra money had to come from someplace. Roughly 70% of that six figure number was going to come from increased booth prices.

If the 'divisions of the proceeds' was clearly understood by both sides, some other 'details' were not. By December 1st Schneringer's telegram to Dalton was revealing a frustration to 'complete' the arrangements. As of that date, Schneringer's November 18th letter to Dalton had gone unanswered and Thanksgiving and weekends aside, STTI clearly felt that various points raised in the November 18th letter 'demanded' attention.

Among the issues raised in the letter were the following:

- 1) Schneringer was having second thoughts about 'donating' a five figure dollar amount to SPACE to pay for SPACE acquiring 'political speakers' to the Vegas show. He commented to Dalton **"Our industry attendees don't give a whoop to hear elected officials ... Goldwater gave an excellent talk (at Orlando) but how many Goldwaters are there?"** STTI wanted a "say" in how that five figure amount was spent.
- 2) Schneringer wanted the entire Board of SPACE to know that **"... there is no other business organization in the United States that would put up the front money and do this enormous job ..."** The issue here was whether there would be three or four shows per year. Apparently the 'tentative decision' reached in Orlando did not pin this one down very well. SPACE 'thought' there would be three per year, all three jointly put on by STTI/SPACE. STTI felt there would be four per year (Vegas, a summer location, Nashville, and **perhaps** Orlando).
- 3) Schneringer had reviewed the notes from his Dalton/Howard meetings in Orlando and had come to the conclusion that the agreement was very one sided. STTI was 'giving' to SPACE a very sizeable six figure amount per year, built around '3' shows that would be jointly operated (STTI would handle Nashville on its own), and various booth and other considerations. From the STTI point of view, SPACE was giving nothing to STTI but its name. Schneringer, upon reflection, requested that the SPACE board open up a new 'seat' on the board. And, that Schneringer fill that seat. Schneringer made the point that 'his' annual six figure funding, to SPACE, made his organization far and away the most substantial backer of the industry's trade show. **"... I feel I should have the privilege of having one small vote in how this money is spent ..."**

Another point of disagreement was the apparent 'tentative' agree-

ment reached in Orlando concerning the splitting of gate receipts. Initially, the SPACE contract involved the six figure annual 'sharing' from STTI and a few 'perks' for SPACE. As the negotiations went along, SPACE found STTI 'willing' to share in the gate receipts as well. SPACE took this as a 'gift' and promptly latched onto the offer. Again, upon reflection, Schneringer decided that this offer was **"... a mistake on my part."** He decided that SPACE was not guaranteeing any effort to insure that SPACE members would attend the show; STTI was engaging in massive mailings to its 60,000 plus mailing list, buying ads in trade publications, and issuing thousands of news story releases to get people to the show. And SPACE? Schneringer suggested that if SPACE was going to share in the gate receipts in addition to getting a 'guaranteed annual six figure amount,' SPACE should be willing to put forth a selling effort as well. He made this point in his November 18th letter.

Now attending a SPACE show (two of them to date) has always cost more than attending an STTI show. Schneringer holds the view that attendees should pay a **modest** price to attend the show(s); SPACE attaches more 'value' to being at a show. SPACE wanted to raise the door price, especially since it was going to get a share of the gate receipts. Schneringer said 'no,' he was comfortable with the \$35 fee for three days or \$15 for a single day. A disagreement developed over this seemingly fine point.

The Express Mail delivery of the November 18th Schneringer letter traveled over a weekend. The following week was Thanksgiving and there were but three working days that week. The following week there were three more working days (November 28, 29 and 30). Six working days had elapsed since Schneringer fired off his letter to Dalton. On the seventh day Schneringer had tired of waiting for a response and he sent off his now famous 1 December telegram, formally breaking off negotiations. Where Dalton was those six days is not recorded.

That Dalton was in his office on December 2nd is recorded. For it was on this date that Dalton mailed a two page letter back to Schneringer.

"I was surprised by your recent telegram attempting to cancel the agreement between STTI and SPACE ..." the Dalton letter began. It then went on to list seven significant steps taken by SPACE, 'relying upon (our) agreement.' Included was that SPACE had cancelled the Vegas hotel space it was holding, notified the entire industry that there would be a joint show and returned all money paid to SPACE as 'deposits' against the SPACE Vegas show booths. Also included was that SPACE sent to STTI the list of those exhibitors who had pre-signed up for the SPACE Vegas show, referred all calls to SPACE concerning the Vegas show to STTI, and that SPACE had ceased to promote the (SPACE) Vegas show.

Dalton noted in his December 2nd response to Schneringer that he had 'first seen' the November 18th Schneringer letter on November 28th. He went on to note, **"Rick, I must confess that I have been in business 18 years and never has anyone threatened to breach a contract because of a failure to answer a letter in less than two weeks."**

Dalton went on to tell Schneringer, "All this ... appears you determined that you do not want to go forward with the joint show ... (and) ... now are looking for some way out of the agreement ..."

Several telephone calls followed. The first conversations, between STTI and Dalton and/or Taylor Howard, seemed to patch things up. Then they fell apart again. Finally, after a five page letter from Dalton to Schneringer dated December 8th, SPACE issued a press release on December 21st. That press release followed by two days an urgent communication to members of the Board of Directors reporting **"Rick Schneringer and STTI have reneged on the agreement to conduct a joint show with SPACE in Las Vegas."** Dalton also told the Board, "I do not think it is in the best interest of SPACE to try to patch up an agreement with Mr. Schneringer again."

Which left SPACE on the spot. It was quickly determined that the original MGM (Hotel) dates for Las Vegas were still open. It was also determined that Caesar's Palace and the Sahara were available for a simultaneous show (March 20-22). The Board was asked to 'vote' on two questions:

- 1) (Should) SPACE institute **immediate litigation** against STTI

and Mr. Schneringer?

- 2) (Should) SPACE **conduct a trade show** in Las Vegas in March of 1984?

In the Press Release issued on December 21st, SPACE offices noted, "... A lawsuit is being drafted and consideration is being given to holding a SPACE Las Vegas show at the same time as the STTI show or earlier. **An injunction preventing the STTI show will also be sought ...**".

AND This Update: After 7 hours of negotiations in Las Vegas during the CES show, January 9th, the SPACE Board voted January 10th to terminate further negotiations with STTI and to proceed with a SPACE Show at the Vegas Caesar's Palace facility **March 18-20**. STTI will hold its show March 20-22 at The Riviera. SPACE reported 220 booths sold by the 12th; STTI is suing SPACE plus Brown/Dalton individually.

DEALERS ARE SCREWING UP SFPC FINANCING PACKAGE

PROBLEMS With Financing?

There is good news and not-so-good news on the financing front this month, according to **Bill Young** of Satellite Financial Planning Corporation. **CJR** went to Young just ahead of press time to find out how dealers were adapting to the new nationwide financing program after it had 60 days to operate (the program began 'officially' on November 8th).

The bad news first, so you will 'stay with us' to profit from the bad news before we get to the good news.

According to Young, his computer files are already drawing some dramatic 'customer profiles' of the 'typical' TVRO buyer, and, the typical 'TVRO dealer.' Some of what the computer is telling us is quite enlightening. For example:

- 1) The ratio of applications turned in to SFPC for processing, to those applications actually approved for financing, is running at 50%. This is not good news; Young feels the ratio should be closer to 80% since all applicants should, on the surface, be 'home owners' and as a group, nationwide, 'home owners' have the best credit ratings of all. We'll look at this shortly.
- 2) The 'success ratio' of individual dealers varies all over the ball park. Taking those dealers who have turned in 8 or more applications, the computer tells us that some dealers are 'batting' .000% while others are batting 1000%. In other words, two separate dealers, perhaps neighbors in the same area, are having dramatically opposite results with using the SFPC 'package.'

CJR/CSD have heard from several dealers who fall in the ".000%" category. The reaction of one North Florida dealer who turned in 12 applications, but only had one approved is typical.

"**I don't think the SFPC program is working.** I spend a lot of time working up those applications. When they are not approved, I am placed in the difficult position of having to go back to my 'customer' and advising them that 'their credit is no good.' I don't like that, at all."

We have also talked with dealers who are averaging 70% and up approvals. One dealer in Texas told us, "**I lost the first two I sent in,**

but every one of the next 9 went through without a hitch. When I lost the first two, I was discouraged. I was ready to give up on the SFPC program. Then I talked at length with Bill Young and he helped me understand why the applicants did not get approved. Now that I understood it, there were several things I found I could do before submitting the application to insure that my applications had a better chance of getting credit approval. **Frankly, I was to blame for the two I lost.**"

"**The most common mistake is to submit an incomplete application.** They come in here with information missing. The applicant's social security number, for example, is missing. So we are having to go back to the dealer for that missing information. The dealers must be **making up social security numbers** because you would be surprised how many of the numbers we get do not correspond to the person named in the application! Naturally, that causes the application to be turned down."

And the next most common mistake?

"**The financial information,** detailing the applicant's wage status, **is incomplete** or inaccurate. When the application makes certain statements about the income level and income sources for the applicant and that information does not correspond with the information on file in the national credit checking system, the application is turned down."

Another complaint we heard was that the applications turned in were taking far longer than 24 hours to turn around. SFPC had advertised that 'most applications would be processed in 24 hours time, or less.' One dealer was so irate that he threatened to 'sue SFPC' for loss of a sale because, he claimed, SFPC had 'sat on the application for five days and done nothing with it.' We checked into this with a member of the SFPC staff responsible for processing applications.

"When an application comes in here with incomplete information, it simply has to sit in a 'suspense file,' waiting the balance of the information."

Would it not be easier to simply ask the dealers, up front, 'Is this a complete application?', before any information is passed over the telephone?

"I wish it was that easy. They **ALWAYS** tell us it is complete. Then when they get down the form a ways, it turns out 'Oh yes, we'll call you back with the social security number' or something like that. This just clogs up the machinery, slowing everything down."

MEANWHILE — Changes In The SFPC Plan

One of the things that has happened to the SFPC plan is a re-evaluation of the program vis-a-vis 'cable TV' rates. The minimum monthly payment originally announced by SFPC was in the \$50 a month region. Cable television rates, something which the average consumer can equate to, meanwhile run in the \$35 per month region as a national average (basic cable service plus a couple of premium channel packages). To Young, the \$35 monthly number was a challenge.

"**Effective immediately,** we will allow our dealers to offer packages with minimum monthly payments in the \$35 region. **We want our dealers to be competitive with the local cable rates.**"

"We have also changed our package so that **if the total package comes to less than \$2500,** the dealer is no longer obligated to offer our warranty/insurance package with the equipment package."

Isn't that a significant change?

"Yes, it is. This means that by eliminating the extended warranty portion of the package, and by offering the lower priced 'starter systems,' the dealer can now compete fully with the 'in-town' monthly cable rates. Consumers can identify with the \$35 a month charge for the service, and when the dealer points out that a \$35 a month cable bill is for service only, while the \$35 a month TVRO charge is for equipment which the TVRO owner will 'own' at the end of the payment program, it starts to make a lot more sense to the consumer."

What about mobile homes? They have, until now, not been capable of being financed since the bank was uncomfortable about financing a TVRO that might get up and move in the middle of the night.

"We have a partial resolution of that. Effective now, if the family living in a mobile home was a land tax bill, meaning their mobile home is on property which they own or are purchasing, we can get them financed; assuming of course they otherwise qualify for a loan. This still does not allow financing for trailers in mobile home parks where the trailer sits on rented ground. But it is a step in the right direction."

Two new telephone 'Hot Lines' are scheduled to be installed at SFPC in March. One will be a dealer hot line for emergency problem consultation, and the second will be a consumer hot line for loan customers who may have questions or problems concerning their TVRO purchase.

There is one more statistic which is worth noting. Out of the thousands of first-sixty-day-loans approved, there is an 'average terminal sale' price in the computer. The number is instructive to all who sell TVRO systems since that number tells us, for the first time, how equipment packages are actually going together in the field. The number? **\$2,807 per system.**

NOTICE: YOU may now charge a CJR or CSD subscription to your VISA or Bank Americard.

Simply call CJR at **305/771-0505** between 9AM and 4PM eastern, weekdays and talk with Carol Graba!

NEWS/ continued from page 2

supply, video, 70 MHz amplifier, audio and mother (boards) are available for the dealer to keep in stock and to make quick, in-field repairs. Optional dealer or factory add-ons available include scan tuning, inverted video, remote (wire controlled) tuning, and, an RF modulator.

REGENCY ELECTRONICS, INC. (7707 Records Street, Indianapolis, In. 46226; 317/545-4281) has suggested a US resale price of \$549.95 on their (new) model **SR 3000** TVRO receiver. It features 24 channel click-stop detent tuning, AFC, signal and center tuning meters, separate video and audio tuning controls, automatic Polarotor control with polarization skew adjustment, a video invert switch and dynamic noise reduction. Outputs include channel 3 or 4 RF, baseband video and audio, composite baseband.



REGENCY SR 3000 TVRO receiver with consumer styling.

SATELLITE VIDEO SERVICES, INC. has opened a new facility in (Raymond) New Hampshire with **Ms. Alice Warner** as General Manager. Michael Clark, from SVS of New York, has become account manager for the New England office and will headquarter there. The new telephone number for the New Hampshire operation is 603/895-3182. SVS has also recently added the Intersat IQ 160 receiver system and the 'Baby Q' receiver to their product line-up. Dealer seminars for the '160' are being held Tuesdays at 1PM at the Palenville, New York facility. Call 518/678-9581 for additional details.

WESPERCOM GROUP, LTD. has donated a TVRO system to the

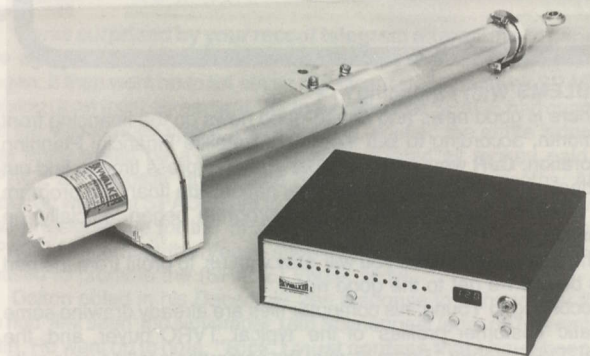
Central Oregon Community College at Bend, Oregon and has begun a vocational training program with the college dealing with satellite (TVRO) systems. The program is designed to produce more college-level-trained technicians for the growing needs of the TVRO industry.

ANTENNAS/ Antenna Parts

KAUL-TRONICS, INC. of Lone Rock, Wisconsin has opened a pair of new regional offices; Boulder, Colorado (4919 North Broadway/Office 39, Boulder 80301) and Las Vegas, Nevada (3840 Spring Mountain Rd., Las Vegas 89114). Boulder's manager is **Pete Beman** while the Vegas manager is **Lon Redel**; both are from the Kaul-Tronics team in Wisconsin. System stockpiling of Kaul-Tronics hardware plus servicing will be carried on in both facilities.

METALEX CORPORATION (1530 Artaius Parkway, Libertyville, Il. 60048; 800/323-0792) makes the claim of being "America's largest and most diversified manufacturer of expanded and perforated metal products" and backs that claim up with the news that a new 50,000 square foot addition has now been completed to their basic 105,000 square foot manufacturing plant. Metalex is now supplying both metal surfaces for TVRO dish antennas and stamped or extruded support ribs. Both aluminum and steel parts are available.

SUPERWINCH, INC. (Route 52 at Exit 95, Putnam, Ct. 06260; 203/928-7787) has added the '**Skywalker II**' antenna actuator and control system to their present product line. The 'II' unit features 16 fully programmable satellite locations, illumination of an indicator light to signal which satellite position the antenna is pointed at, a pre-scan feature to allow pre-selection of a desired satellite in advance of dish movement, a three digit LED readout for programming and fine adjustment, externally set limit switches, a lock-out function to hold the antenna in a favored position and standby backup powering to hold satellite locations in memory for up to a week of no-power.



SUPERWINCH SKYWALKER III Antenna Actuator System.

SMATV Update

Aggressive selling of SMATV services, using a coordinated marketing plan, is the goal of **Burnell Communications Group** (2042 Spring Road, Stroughton, Wi. 53589; 608/873-4903). The firm specializes in helping SMATV operators 'market' their new SMATV/private cable systems and reports initial-pass penetrations of over 40% using their program.

FUTURESAT, INC. (315 Larkfield Rd., East Northport, N.Y. 11731) has signed an agreement with Parthenon, USA for more than \$60,000,000 in SMATV systems spread over the next 36 months. Parthenon is a major builder of planned communities and the firm plans 200,000 new housing units over that span of time. Futuresat will provide the cable television (SMATV), fiber optics, telephone switching and internal security systems at an average cost of \$300 per residence.

WESPERCOM GROUP, Ltd.'s Harold J. Blackwell has hailed the FCC's decision not to allow state and local governments to regulate SMATV/private cable systems as a "remarkable and wise change of philosophy." **Blackwell** sees major growth in the SMATV area during

1984 and his firm has recently completed program contract negotiation talks with ONTV, The Movie Channel, Showtime, Turner Broadcasting and WGN where he found a willingness to negotiate private user agreements for SMATV/private cable use of the program sources.

ATTACHMENTS

VIDITEK INTERNATIONAL (9134 Independence Av., Chatsworth, Ca. 91311; 213/998-8029) has announced a new video and stereo audio home switcher unit which should appeal to video buffs with a video and audio control problem in elaborate home TVRO systems. Their model **SSV560** switcher will handle four sets of video/stereo-audio inputs and provide four sets of outputs. An extra set of inputs and outputs is also provided for special effects generators, enhancers, processors and additional accessory equipment. The audio portion may be 'looped' through external graphic equalizers or other equipment for sound enhancement. An extra output is provided for on-location monitoring and any of the four inputs can be switched to the monitored output. The unit is a matrix switcher allowing any input to be switched to any output and audio and video can be switched separately or together. Video connections are BNC connections; audio are gold plated RCA type jacks. Rack mounting is available.



VIDITEK's Stereo Video Switcher.

DISTRIBUTOR News

HIGH FRONTIER DISTRIBUTION (1445 W. 12th Pl., Tempe, Az. 85281; 602/966-9824) will be opening a new warehouse and distribution facility in Southern California near Los Angeles. **Gary McNailey** has been named President of the new facility and in stock will be all of the High Frontier product lines carried in Arizona.

INTERNATIONAL VIDEO COMMUNICATIONS (North Little Rock) plans to announce a new sales program which President **Gene Mullenax** claims will "significantly reduce the home TVRO system buyer's final cost" for an installed TVRO system. IVC has a target cost of 80 cents per day (around \$24 a month) for the equipment and it will include a three year warranty and 100 percent financing according to IVC.

NATIONAL SATELLITE COMMUNICATIONS has moved from Latham, New York to a pair of new facilities; 21st Century Park, Clifton Park, New York (12065), and, 10789 Satellite Blvd., Orlando, Florida. The Clifton Park facility is the new corporate headquarters for the firm, effective immediately, while the Orlando facility is scheduled to open on February 15th.

BUSINESS Reports

TX Engineering, Inc., the Renton, Washington manufacturer of 'custom television network' TVRO reception systems and distribution packages has been acquired by an over-the-counter public corporation called **Satellite Data, Inc.**, of Boston. TX Engineering's package of equipment was featured in a special **CJR** marketing report appear-

ing in our October, 1983 issue. The acquisition was carried out under planning executed by Spectrum Consulting Services and was for stock in Satellite Data, Inc.

BIZNET NEWS TODAY has a growing satellite delivered audience according to the U.S. Chamber of Commerce. There are now 25 commercial television stations carrying the F4 delivered weekday program and an estimated 29% of all American homes are now served by the service. BizNet continues to be aggressive in working with TVRO dealers who wish to make their daily program fare available to local business groups.

WIRESAT CORPORATION (5960 SW 1st Lane, Ocala, Fl. 32674; 904/237-6241) has a new corporate line up that includes **Fred B. Threlfall** as Director of Sales and marketing for SMATV/private cable subscribers and **James R. George** who is now responsible for SMATV/private cable system design, construction and field installation.

STS/Satellite Technology Services, Inc. of St. Louis has appointed **Daniel R. Smallwood, Jr.** as production manager for its manufacturing operations. Smallwood will be responsible for the production of the new STS dual conversion downconverter units; STS is the importer of the Luxor receivers from Sweden.

UNIDEN Corporation of America, the Japanese firm with a global marketing strategy discussed at some length in the January issue of **CSD**, has made its 'first move' to enter the US TVRO marketplace. **Guy Davis**, formerly a Vice President with Intersat Corporation, has been hired by Uniden to direct the US entry of Uniden into the TVRO marketplace. Davis will headquarter in the firm's Huntington Beach, California facility.

CALENDAR/ Through February 28th

Jan 16/18: Low Power Television Conference, Disneyland Hotel, Anaheim, Ca. (call 203/852-0500).

Jan 23/25: NSCA/Eagan Associates SMATV-Private Cable workshop in Monterey, California (call Larry Hannon at 904/237-6106).

Jan 24/26: MATV/CATV/LPTV/TVRO/SMATV Technical Seminar hosted by Blonder Tongue Labs, Inc. at Holiday Inn Airport, South Hotel in Atlanta, (call Betty Karas at 201/679-4000).

Jan 26/27: Terrestrial Interference Seminar sponsored by Microwave Filter Company in (E) Syracuse, NY (call Bill Bostick at 315/437-3953).

Jan 28: Wespercom Group Winter Education Seminar, Delta Lakeside Hotel, Penticon, BC (call 503/389-0996 for reservations).

Feb 3/5: First Canadian Satellite Exposition, Delta River Inn, Vancouver, British Colombia. NOTE: Previously scheduled world premiere "COOP'S TVRO INDUSTRY TOUR TO SRI LANKA/ Arthur C. Clarke" **rescheduled** Vegas March. Call 604/430-4040.

Feb 18: Wespercom Group Winter Education Seminar, North Shore Hotel, Coeur d'Alene, Idaho (call 503/389-0996 for reservations).

BIRD ACTIVITY REPORT

87° W, D3: Continued degradation of ABC service on TR13; network has switched off D3 with programs (Jan. 9) to feeds on new T1 bird at 95.5 west. ABC use of D3, TR8 limited to infrequent Los Angeles feeds. CBS service TR10 and NBC service TR1 continues.

95.5° W, T1: Activity from TeleStar replacement for ailing D1/D2 combo flight at 96 west (now retired) with ABC feeding central time zone TR10, and LA feeds east on TR12. ABC London feeds on TR15 three parts of day, rest is filled with London's 'Capital Radio' service on audio.

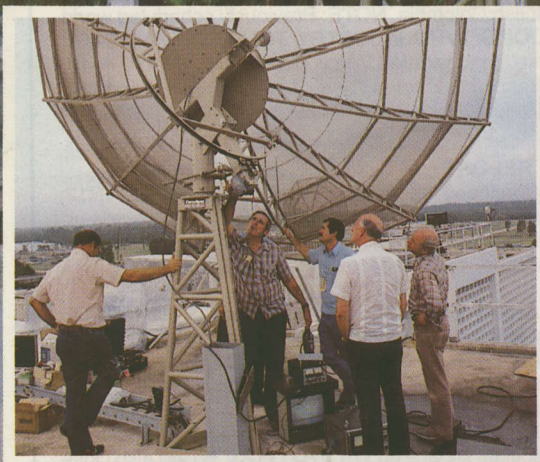
131° W/F3R: Future use of TR4 after Feb 1 in doubt with Spotlight leaving air. Spotlight service on W5, TR21 (123° W) will also close down. Possible uses include west coast feed (three hours delayed from east) of The Movie Channel on TR5.

134° W, G1: CNN now feeding TR7; look for WOR to begin feeding on TR15 as you read this (Jan 15th scheduled). Showtime's "The Movie Channel" scheduled to begin feeding TR5, west coast version of TMC, 1 February. C-SPAN's scheduled use of TR13 in considerable doubt as transponder reported failed by Hughes.

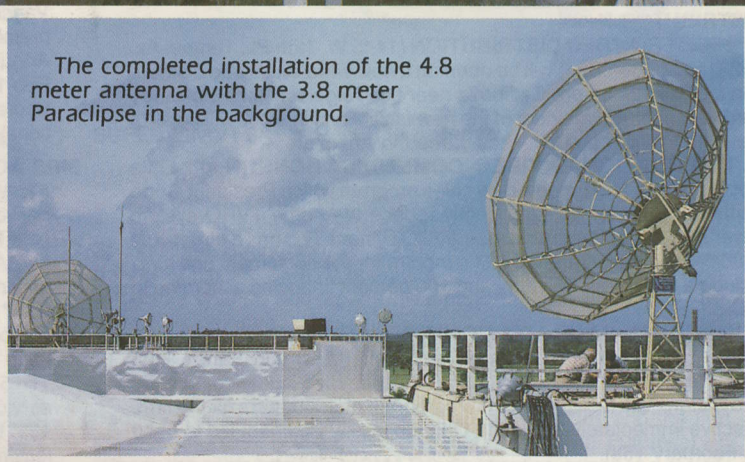
KENNEDY SPACE CENTER



The Paraclipse 4.8 meter satellite antenna was installed atop NASA's Central Instrumentation Facility, at the Kennedy Space Center, November 1983. Shown here during the installation of the mesh.



NASA engineers watch Paradigm chief engineer Frank Casten (plaid shirt) and Paradigm engineer Gene Campbell fine tune the 4.8 meter with a spectrum analyzer.



The completed installation of the 4.8 meter antenna with the 3.8 meter Paraclipse in the background.

Mark Fator photographer

Paradigm Manufacturing, Inc.
3711 Meadowview Drive
Redding, California 96002
(916) 244-9300 (916) 365-9131

Paraclipse
HIGH PERFORMANCE
SATELLITE TELEVISION SYSTEM

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